

# Devils Lake West End Outlet Operations Plan

## 1. Intent:

- 1.1. To remove water from Devils Lake while maintaining river levels and water quality at acceptable levels downstream.

## 2. Description:

- 2.1. The West End Outlet is capable of pumping up to 250 cubic feet per second (cfs) and consists of; an intake structure, two pump stations, a combination of open channel and closed conduit conveyance, and an outfall structure.  
The pump stations each consist of two 75 cfs pumps and two 50 cfs pumps.

## 3. Operating Limitations:

- 3.1. Water Levels Downstream – protect critical infrastructure.
- 3.2. Water Quality Downstream – protect aquatic life.

## 4. Operating Procedures:

- 4.1. Operate from April to November\* while the lake elevation is above 1445 feet (29 NGVD).
- 4.2. Start operations as soon as downstream river conditions allow, and operate at 250 cfs while downstream river conditions allow.
  - 4.2.1. Water Levels Downstream Limit – Reduce or suspend operations as necessary, with input from the Devils Lake Advisory Board, in response to river levels downstream.
  - 4.2.2. Water quality limit – Operate this outlet in conjunction with the East End Outlet in a manner to produce water quality downstream of the outlets consistent with the protection of aquatic life.
- 4.3. Shutdown when ambient daytime air temperatures in the region are forecast to fall below 32°F for an extended period.

\* Actual operation start and end dates will be determined based on spring runoff flood conditions and fall freeze-up.

# PRELMINARY

## Devils Lake East End Outlet Operations Plan

1. Intent:
  - 1.1. To remove water from Devils Lake while maintaining river levels and water quality at acceptable levels downstream.
2. Description:
  - 2.1. The East End Outlet is capable of pumping up to 350 cubic feet per second (cfs) and consists of; an intake structure, a pump station, approximately 5 ½ miles of 96-inch pipe conveyance, and an outfall structure. The pump station consists of four 75 cfs pumps and one 50 cfs pump.
3. Operating Limitations:
  - 3.1. Water Levels Downstream – protect critical infrastructure.
  - 3.2. Water Quality Downstream – protect aquatic life.
4. Operating Procedures:
  - 4.1. Operate from April to November\* while the lake elevation is above 1446 feet (29 NGVD).
  - 4.2. Start operations as soon as downstream river conditions allow, and operate at 350 cfs while downstream river conditions allow.
    - 4.2.1. Water Levels Downstream Limit – Reduce or suspend operations as necessary, with input from the Devils Lake Advisory Board, in response to river levels downstream.
    - 4.2.2. Water Quality Limit – Operate this outlet in conjunction with the West End Outlet in a manner to produce water quality downstream of the outlets consistent with the protection of aquatic life.
  - 4.3. Shutdown when ambient daytime air temperatures in the region are forecast to fall below 32°F for an extended period.

\* Actual operation start and end dates will be determined based on spring runoff flood conditions and fall freeze-up.